

Abstract Submitted  
for the MAR09 Meeting of  
The American Physical Society

**Thermodynamic Behavior of Poly(styrene-*b*-styrene sulfonate) Block Copolymers With Varying Counterions** KEVIN CAVICCHI, The University of Akron, KEVIN POLLACK, Carleton College — A series of poly(styrene-*b*-styrene sulfonate) (PS-*b*-PSS) block copolymers have been prepared by RAFT polymerization. The counterions in the PSS block have been varied by neutralizing the sulfonate groups with alkyl amines or quaternary ammonium ions. The choice of counterion has a strong effect on the lipophilicity of the PSS block. This presentation will focus on the resulting morphology and bulk thermodynamic behavior of these polymers as a function of the PSS counterion. The use of these materials for preparing ion-exchange membranes will be discussed.

Kevin Cavicchi  
The University of Akron

Date submitted: 21 Nov 2008

Electronic form version 1.4